REMARKS

Claims 1 and 2 have been canceled. Claims 3 and 5 have been amended. Claims 7-24 have been added. Therefore, claims 3-24 are pending in the case. Further examination and reconsideration of pending claims 3-24 are hereby respectfully requested.

Double Patenting Rejections

Claims 1 and 2 were rejected under the statutory type (35 U.S.C. § 101) double patenting as claiming the same invention as that of claims 1 and 2 of prior U.S. Patent No. 6,411,904 to Chandler. Claims 1 and 2 have been canceled to overcome the double patenting rejections.

Section 102 Rejections

Claims 3-6 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,367,474 to Auer et al. (hereinafter "Auer"). As will be set forth in more detail below, the § 102 rejections of claims 3-6 are respectfully traversed.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), MPEP § 2131. The cited art does not disclose all limitations of the currently pending claims, some distinctive limitations of which are set forth in more detail below.

The cited art does not teach a flow analyzer configured to collect data for events in successive sampling periods with substantially zero dead time between the successive sampling periods and a buffer adapted to receive the data from the flow analyzer and to store the data for each of the successive sampling periods in different data storage areas with substantially zero dead time between storage of the data in the different data storage areas. Amended independent claim 3 recites, in part:

> a flow analyzer configured to collect data for events in successive sampling periods with
> substantially zero dead time between the successive sampling periods; at least one buffer
> having a plurality of data storage areas, wherein the at least one buffer is adapted to
> receive the data from said flow analyzer and to store the data for each of the successive

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sampling periods in different data storage areas with substantially zero dead time between storage of the data in the different data storage areas.

Amended independent claim 5 recites similar limitations. Support for the amendments to these claims can be found in the Specification, for example, in paragraphs 0023 and 0024.

Auer discloses a flow cytometer that includes a plurality of detectors for providing voltage pulse signals as particles pass through an illuminated detection station. Auer, however, does not disclose a flow analyzer configured to collect data for events in successive sampling periods with substantially zero dead time between the successive sampling periods and a buffer adapted to receive the data from the flow analyzer and to store the data for each of the successive sampling periods in different data storage areas with substantially zero dead time between storage of the data in the different data storage areas. For example, Auer states that "data acquisition logic 64 detects the initializing of an event, that is, when a cell is properly positioned in detection station 20 and ready for identification. Further, it detects the occurrence of missed events which occur when both sample and hold circuits 138 and 146 are holding data." (Auer -- col. 14, line 66 - col. 15, line 3). Therefore, according to the teachings of Auer, the system of Auer misses events. In other words, even though the system of Auer is configured to detect the occurrence of missed events, no data is actually collected for the missed events since sample and hold circuits 138 and 146 are already storing other data. As such, although the system of Auer determines whether or not the system has missed events, these events are still missed by the systems of Auer.

"Dead time" is defined in the present application as time during which any event occurring during flow through an examination zone is missed. (See, for example, Specification -- paragraphs 0010-0021). In this manner, according to the teachings of Auer, the prior art system is not configured to collect data with substantially zero dead time as presently claimed since at least some events occurring within the detection station of the system of Auer are missed. Therefore, the system of Auer is clearly not configured for substantially zero dead time data collection. As such, Auer does not teach a flow analyzer configured to collect data for events in successive sampling periods with substantially zero dead time between the successive sampling periods and a buffer adapted to receive the data from the flow analyzer and to store the data for each of the successive sampling periods in different data storage areas with substantially zero dead time between storage of the data in the different data storage areas, as recited in claims 3 and 5. Therefore, Auer does not teach all limitations of claims 3 and 5.

For at least the aforementioned reasons, claims 3 and 5 are not anticipated by the cited art. Therefore, claims dependent therefrom are not anticipated by the cited art for at least the same reasons. Accordingly, removal of the § 102 rejections of claims 3-6 is respectfully requested.

Patentability of Added Claims

Claims 7-24 have been added to the present application. Support for claims 7-24 can be found in the Specification, for example, in paragraphs 0017-0088. Accordingly, claims 7-24 do not present new matter.

Independent claim 7 recites in, part:

> a flow analyzer configured to collect data during successive sampling periods with substantially zero dead time between the successive sampling periods; an addressable buffer comprising data storage areas, wherein the addressable buffer is configured to store the data for each of the successive sampling periods in different data storage areas with substantially zero dead time between storage of the data in the different data storage areas.

Independent claim 24 recites similar limitations. For at least the reasons set forth above, Auer does not teach a flow analyzer configured to collect data during successive sampling periods with substantially zero dead time between the successive sampling periods and an addressable buffer that includes data storage areas and that is configured to store the data for each of the successive sampling periods in different data storage areas with substantially zero dead time between storage of the data in the different data storage areas, as recited in claims 7 and 24. Therefore, Auer does not teach all limitations of claims 7 and 24.
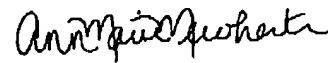
For at least the reasons set forth above, claims 7 and 24 are not anticipated by the cited art. Claims 8-23 depend from claim 7 and therefore are not anticipated by the cited art for at least the same reasons. Accordingly, allowance of claims 7-24 is respectfully requested.

CONCLUSION

This response constitutes a complete response to all issues raised in the Office Action mailed February 11, 2005. In view of the remarks traversing rejections presented therein, Applicants assert that pending claims 3-24 are in condition for allowance. If the Examiner has any questions, comments, or suggestions, the undersigned earnestly requests a telephone conference.

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The Commissioner is authorized to charge the excess claims fees ($300.00) or credit any overpayment to deposit account number 50-3268/5868-02207.

Respectfully submitted,

Ann Marie Mewherter
Reg. No. 50,484
Agent for Applicant(s)

Daffer McDaniel LLP
P.O. Box 684908
Austin, TX 78768-4908
Ph: (512) 476-1400
Date: 5-11-05